

CLAIMS

5 1/ A method of obtaining a carbon fiber fabric by continuously carbonizing a cellulose fiber fabric, the method being characterized in that the fabric travelling continuously through a carbonization chamber is subjected to heat treatment comprising:

10 - an initial stage for bringing the temperature of the fabric to a value lying in the range 250°C to 350°C, the initial stage comprising temperature rise at a first mean speed lying in the range 10°C/min to 60°C/min;

15 - an intermediate stage for raising the temperature of the fabric to a value lying in the range 350°C to 500°C, the intermediate stage comprising temperature rising at a second mean speed lower than the first and lying in the range 2°C/min to 10°C/min; and

20 - a final stage for raising the temperature of the fabric to a value lying in the range 500°C to 750°C, the final stage comprising temperature rising at a third mean speed greater than the second and lying in the range 5°C/min to 40°C/min.

25 2/ A method according to claim 1, characterized in that the fabric is caused to travel through the chamber via successive zones, each of which has a controlled temperature therein.

30 3/ A method according to claim 1 or claim 2, characterized in that the transit time of the fabric through the chamber lies in the range 20 min to 2 h.

4/ A method according to claim 1 or claim 2, characterized in that, prior to carbonization, the

fabric is subjected to relaxation treatment at a temperature lying in the range 100°C to 250°C.

5/ A method according to claim 4, characterized in that
the relaxation treatment is performed in air.

6/ A method according to claim 4 or claim 5,
characterized in that the relaxation treatment is
performed for a duration lying in the range 15 min to
3 h.

7/ A method according to any one of claims 1 to 6,
characterized in that the carbonized fabric is subjected
to high temperature heat treatment lying in the range
1000°C to 2800°C after it has passed through the
carbonization chamber.

8/ A method according to claim 7, characterized in that
the high temperature heat treatment is performed for a
duration lying in the range 1 min to 10 min.

9/ A method according to any one of claims 1 to 6,
characterized in that the carbonized fabric is subjected
to activation treatment.

Add. 1